

**AMENDMENTS TO THE CLAIMS**

**CLAIMS LISTING:** This listing of Claims will replace ALL prior versions and listings of the Claims in the present application.

- (Canceled) 1. A magnetic memory cell comprising first and second magneto-resistive devices connected in series, the first magneto-resistive device having a first sense layer, the second magneto-resistive device having a second sense layer, the first and second sense layers having different coercivities.
- (Canceled) 2. The memory cell of claim 1, wherein the first and second devices are magnetic tunnel junctions.
- (Canceled) 3. The memory cell of claim 2, wherein the first magnetic tunnel junction includes the first sense layer and a first pinned layer; and wherein the second magnetic tunnel junction includes the second sense layer and a second pinned layer.
- (Canceled) 4. The memory cell of claim 2, wherein the sense layers of the first and second devices are back to back; and wherein the sense layers are separated by a layer of non-magnetic material.
- (Canceled) 5. The memory cell of claim 2, wherein the first and second magnetic tunnel junctions share a pinned layer.
- (Canceled) 6. The memory cell of claim 2, wherein hysteresis loops of the first and second junctions are nested.
- (Canceled) 7. The memory cell of claim 1, wherein the sense layers in the first and second devices have different shapes.
- (Canceled) 8. The memory cell of claim 1, wherein the sense layers in the first and second devices have different sizes.